

Amendments to the Specification

Please replace the paragraph beginning on page 5, line 20, with the following rewritten paragraph:

~~Fig. 1~~ Fig. 1A is a longitudinal cross-section view of a blower according to one embodiment of the present invention;

Fig. 1B is a perspective view of certain elements of a blower according to one embodiment of the present invention;

Fig. 2 is a bottom view of the blower shown in ~~Fig. 1~~ Figs. 1A and 1B; and

Fig. 3 is a longitudinal cross-sectional view of a conventional blower.

Please replace the paragraph beginning on page 5, line 29, with the following rewritten paragraph:

~~Fig. 1~~ Fig. 1A is a longitudinal cross-sectional view of an embodiment of a blower according to the present invention, and Fig. 2 is a bottom view of the blower shown in ~~Fig. 1~~ Fig. 1A. ~~Fig. 1~~ Fig. 1A is a linearly developed cross-sectional view taken from lines A-O-B in Fig. 2.

Please replace the paragraph beginning on page 7, line 10, with the following rewritten paragraph:

The electronic circuit on the PC board 17 controls an electric current supplying to the stator wire 15 in order to rotate the unit of the motor yoke 11 and the permanent magnet 14 relative to the unit of the stator wire 15 and the stator core 16. The stator wire 15 is connected to the electronic circuit on the PC board 17 by means of a pin terminal 28. In addition, a lead wire 18 is connected to the PC board 17 so as to supply an electric power to the PC board 17 therefrom. Reference numeral 29 in ~~Fig. 1~~ Fig. 1A denotes an insulation interposed between the stator wire 15 and the stator core 16.

Please replace the paragraph beginning on page 8, line 3, with the following rewritten paragraph:

The blower according to the present invention has the PC board 17 housed within the case portion 23 as shown in ~~Fig. 1~~ Fig. 1A.

Please add the paragraph beginning on page 10, line 3:

Fig. 1B illustrates the casing 1 and the case portion 23 in a perspective view. As seen in Fig. 1B, the casing 1 has a motor base 21 integrally formed therein. Moreover, the motor base 21 and the lid member 22 (partition plate) collaborate to form the case portion 23. As discussed in the context of Fig. 1A, the case portion 23, and more particularly, the lid member (partition plate) 22, prevents the stator wire 15 from directly contacting the PC board 17. In addition, the case portion 23 prohibits dust and moisture from directly settling into the PC board. Also seen in Fig. 2, is the bearing support 24 integrally formed with the lid member 22. The bearing support 24 provides support for the bearings 4, 5. As previously discussed in the context of Fig. 1A, the lid member 22 and bearing support 24 are made of a material with excellent thermal conductivity, reducing the build up of self-generated heat.

REMARKS

Claims 2 and 4 are pending in this application. By this amendment, the specification, the drawing figures and claim 2 are amended. Reconsideration in view of the foregoing amendments and following remarks is respectfully requested.

I. Formal Matters Satisfied

The Office Action objects to the drawing figures for failing to show a lid member integrally formed with a bearing support member and a motor base that is integrally formed with a casing. Applicant respectfully submits that, by this amendment, new drawing Fig. 1B has been added which isolates the lid member, with bearing support and case with integrally formed motor base. Applicant further submits that support for this drawing figure can be found at pages 8-9 of the original specification. Moreover, the specification has been amended to specifically reference the new drawing Fig. 1B. Accordingly, Applicant respectfully requests that the outstanding objection to the drawings be withdrawn.

The Office Action objects to claim 6 as not being supported by the original specification. Accordingly, Applicant has cancelled claim 6 in order to overcome the objection. Therefore, Applicant respectfully submits that the rejection of claim 6 has been rendered moot.

II. Claims Define Patentable Subject Matter

The Office Action rejects claims 2, 4 and 6 under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 4,682,065 to English et al. in view of U.S. Patent No. 5,663,604 to Takahashi and further in view of U.S. Patent No. 4,554,941 to Plunkett and U.S. Patent No. 6,031,306 to Permuy. Applicant respectfully traverses the rejection.

At the outset, Applicant notes that the rejection of claim 6 has been rendered moot by the cancellation of this claim. However, as the rejection applies to remaining claims 2 and 4, it is respectfully traversed.

In particular, Applicant submits that none of the applied references suggest or disclose a blower comprising, inter alia, a case portion closely disposed to a stator wire and a stator core with a circuit board housed within the case portion wherein the case portion comprises a motor base integrally formed with the casing and a lid member made of an aluminum die cast integrally formed with a bearing support member and connected to the motor base in such a manner as to cover the motor base and protect the circuit board, as recited in amended claim 2.

The Office Action admits that English et al. fails to teach the features of a stator core and stator wire in a circuit board mounted with an electronic circuit and a partition plate (lid member) interposed between the stator coil and the circuit board. Therefore, English et al. is incapable of achieving the benefits discussed at pages 8 and 9 of the specification in this application. For example, because English et al. does not teach a partition plate, it is incapable of protecting the circuit board from the stator wire as well as from particle contamination.

The Office Action relies upon Takahashi to teach a motor base formed with the casing and a lid member connected to the motor base in such a manner as to cover the motor base. However, in Takahashi, the lid member is not formed integrally with a bearing support member. This is significant because the opening in the circuit base allows for particular contaminants to reach the circuit board. As seen in Fig. 1 of Takahashi, supporting plate 8 has an opening 56. Col. 3, lines 58-59 state, "the end of the shaft 38 is loosely inserted into the opening 56 of the circuit base 54...." Therefore, if the supporting plate 8 is to be analogized with the lid member 21 of claim 2, it certainly does not have an integral bearing support. As seen in new Fig. 1B, the lid member with integral bearing support fits on the motor base of the case to create a protected enclosure.

The Office Action relies upon Plunkett to teach a fan with electronic current control circuit. However, Plunkett fails to supply the deficiencies of English et al. and Takahashi as discussed above.

The Office Action relies upon Permuy to teach a cylindrical casing shell having an end plate that is integrally formed with the casing in order to close one axial end of the motor. However, and as is clearly seen in Fig. 1 of Permuy, the end plate 4 is not integrally formed with the casing. Instead, the end plate is attached to the casing with fastening lugs 6. Accordingly, Permuy is a more complex and costly design than that of claim 2. Moreover, Permuy does not teach a lid member integrally formed with a bearing support member to cover the motor base. Instead, Permuy teaches a planar circular hoop portion 24 seen in Figs. 1 and 2. Therefore, Applicant believes that claim 2 is patentable over Permuy on this basis.

In view of the foregoing distinctions, Applicant respectfully submits that claim 2 is patentable over the combination of applied references. Claim 4 is likewise patentable for at least the same reasons as claim 2, as well as for the additional features recited therein. Accordingly, Applicant respectfully requests that the rejection of claim 2 and of claim 4 under 35 U.S.C. §103(a) be withdrawn.

Applicant submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 2 and 4 are earnestly solicited. Should the Examiner believe that any further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Phillip D. Mancini
Registration No. 46,743

JAO:PDM/ccs

Attachment:
Replacement Drawings (Figs. 1A and 1B)

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OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

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